1: Cooper E-4 (no date) 1946 SH5 Tehuelche SH5

323 **Pottery.**—The early *Tehuelche* used very simple and crude pottery (Pigafetta, 1906, 1:50), and pottery occurs archeologically far down the Atlantic coast and inland in *Tehuelche* territory (present volume, p. 20; Lothrop, 1932 b, pp. 194–196); but again there is no information on process of manufacture. Fitz-Roy (1839, 2:172) reported pottery absent from the *Tehuelche* of his day.

281 325 **Miscellaneous.**—The *Tehuelche* did excellent lasso plaiting and saddlery work, and, after the early 19th century, very creditable silversmithing (Muñiz, 1917, p. 214; Bourne, 1853, p. 97, cf. 96).

281 [413] **Skin dressing.**—In dressing skins, the women first pegged them down to sun-dry them, then scraped them with flint, agate, obsidian, or glass scrapers. The scrapers (fig. 18, *g*) are hafted by lashing the blade to a bent split sapling (cf. illustr., Outes and Bruch, 1910, p. 121) or by setting it transversely in a block of wood. The skins were next smeared with grease and liver, were kneaded into a pulp, and were [413] softened by hand until quite pliable. A soft-grained stone was also used for scouring. In sewing, an eyeless needle or awl, later made of [283] an iron nail, and thread of guanaco or rhea sinew were used. (On *Tehuelche* skin dressing, cf.: Lothrop, 1929; Bourne, 1853, pp. 98–99; Guinnard, 1864, pp. 68–69; Roncagli, 1884, p. 778; Hatcher, 1903, p. 269. Our most detailed account is Kermes, 1893, pp. 209–210, for "*Pampa*" Indians apparently of Río Negro, probably including *Tehuelche;* he records dehairing with ashes.)

415 412 Skin bags were made for holding water (Coan, 1880, p. 53; Gardiner and Hunt, 1852, p. 89; Bourne, 1853, p. 82), paints, etc. Knives were earlier made of stone, and such were still used in the middle 18th century (Sánchez Labrador, 1936, p. 75). A small hand-adz was used in woodworking (fig. 18, *f;* cf. Musters, 1871, pp. 168, 170).

411 **Weapons.**—The chief hunting and fighting weapon of the early *Tehuelche* was the bow and arrow, which finally went out of use in the first half of the 19th century (Morrell, 1832, p. 84; Fitz-Roy, 1839, 2:149). The bows are described both as long and as short, with guanaco sinew string; arrows, with cane shafts, heads of stone or bone, and three feathers (Oviedo, 1851–55, 2:40), carried originally in the hair, fillet headdress, or belt instead of a quiver. D'Orbigny (1935–47, 2:116–117) reported bows 3 feet (90 cm.) long, some use of skin quivers, and slings. The bolas, of the one-, two-, and three-balled types (fig. 18, *i, j, k*), began to replace the bow and arrow at the time of the adoption of the horse. The lasso, too, was of later introduction.

The lance, bola perdida, European weapons, and armor are discussed below, pp. 153–154.

372 **Fire making.**—Ordinarily fire was made by the drill method. Fire making by percussion is recorded by two observers, Coan (1880, p. 50) with two pebbles and Spegazzini (1884, p. 229) with two flints—the former case possibly due to immigrant *Ona* influence (cf. supra).

2: Musters T-5 (1869-1870)1873
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started to hunt, but came back shortly almost empty-handed, fairly beaten by the driving sleet and snow. During our stay most of us had refitted all our gear, and were well provided with bolas; many were the necks of guanaco stripped to obtain the hide for them, and for making 'maneos' (straps for securing horses' legs), whips, cinctas (girths), lazos, &c., &c. The work that I preferred was plaiting ostrich sinews for thongs for the ostrich bolas. The ostrich sinews are abstracted by dislocating the lower joint of the leg, the first sinew is then pulled out by hand, and the other drawn out by main force, using the leg bone as a handle. This bone is then separated from the foot, and the sinews left adhering to the foot; they are slightly dried in the sun, after which the extracted bone is used to separate the fibres by drawing it sharply up the sinews. When sufficiently separated, they are cut off from the foot, split into equal sizes and lengths, and laid in a moist place to soften; when sufficiently soft, they are made into thongs, cooked brains being used to make them more pliable, and lie better in the plaits. These thongs are plaited in four plaits (round sinnet) well known to every sailor, but the ends are doubled in a peculiar manner, which requires practice to manage well.

Before leaving Chiriq another disturbance was nearly taking place, caused by one of the Chilians quitting Tchang's toldo and joining that of a man commonly called Santa Cruz, an Indian well known at Patagones, and allowed a ration of mares from the Government. Tchang, immediately on hearing of his departure, put on his revolver and collared the Chilian's horse. To this Santa Cruz objected, but Tchang kept the horse, and, revolver in hand, defied anybody's claim to it. After this little incident the camp was broken up, and the two parties divided—Hinchel marching S.W. and our party to the N.W.

After a very cold and hungry march in the face of a bitterly piercing wind, we encamped on the shores of a lagoon of some extent, called 'Hoshelkaik,' which signifies 'Windy-

2: Musters T-5 (1869-1870)1873
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with a bodkin, and sewn to the hide with sinew. The anvils and hammers for working silver are generally stones implements; flints, however, are only used by the men for procuring fire. The Tehuelches are also very handy workers in iron, and will fashion a knife, or even an adze, out of any piece of metal procured by theft, commerce in the colonies, or from wrecks on the coast. One of the knives frequently used in the latter part of my journey was formed out of one blade of an old pair of scissors forged for me by Hinchel.

Their tools for working silver, iron, wood, &c., consist of files, known by the expressive name of 'Khikerikikh,' or perhaps a rasp, an occasional saw, an axe, the inevitable small adze (fig. 6), a pair of scissors, or an old chisel. Many of these have been obtained from shipwrecks on the coast, others by barter in the settlements.

The women's most important occupation in camp was the making up of skin mantles, which merits a full description.

The skins are first dried in the sun, being pegged down with thorns of the algarroba tree. When dry they are taken up, and scraped with pieces of flint, agate, obsidian, or sometimes glass, fixed into a branch naturally bent so as to form a handle (fig. 7). They are then smeared over with grease and liver kneaded into pulp, after which they are softened in the hand until quite pliable, when they are placed on the ground and cut with a small, very sharp knife into pieces, dovetailed so as to fit one into the other, in order to secure strength of seam, and parcelled out amongst a party of four or six women, with a corresponding quantity of needles and thread, consisting of bodkins formed out of sharpened nails, and dried sinews from the back of the adult guanaco. A whole mantle is never sewn together at once, but when one half is finished it is pegged out and the paint applied to it thus. The surface is slightly damped, and each woman takes a cake or piece of red ochre, if the ground is to be red, and, keeping it damp, lays the paint on with great care. When the ground is finished, the pattern of small black spots and blue

4: Lothrop A-4 (no date) 1929
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the introduction of the horse, between 1670 and 1741, the Tehuelche abandoned their ancestral weapon in favor of the bolas. As pointed out by Outes,[10] there is no literary mention of bolas in Patagonia before the expedition of John Byron in 1764, but all travelers thereafter speak of it. On the other hand, various discoverers during the first half of the sixteenth century observed bolas in use among the inhabitants of the La Plata littoral, such as the Mimmané, Charrúa, and Querandí, but archeological evidence indicates that this missile was never employed so extensively in that region as it was later in Patagonia. In Chile, Bolivia, and Peru occasional finds have been made of grooved stones suggesting bolas, but their use never was typical, for the inhabitants of these lands preferred the sling. The greatest development of the bolas, then, was among the Tehuelche, but the center of dispersion apparently was the La Plata district.

Among the Tehuelche three types of bolas were employed (fig. 2, *g–i*). The simplest of these, known as the *bola perdida*, was a stone ball attached to a cord about a yard long. This was employed in warfare, for finishing off wounded game, and for killing pumas, which they always attacked at close quarters (fig. 3). A second type, called *chaual*, had two balls joined by a cord six or seven feet long. This was intended primarily for capturing ostriches. A third type, with three balls, known as *yarkóio*, was dedicated to the pursuit of guanacos.

In compound bolas one ball is especially designed to be grasped in the hand when the missile is spun and cast. We do not know the Tehuelche name for it, but it is called the *manejo* in Spanish. This stone is not round, but oval (fig. 2, *d–f*), and is lighter by about a third than the other balls.

In former times bolas' balls were made of stone or hematite, but the Tehuelche have employed lead or copper when procurable. Archeological examples from southern Patagonia, illustrated in fig. 2, *a–c*, show various types of grooving. More recently, however, the stones have been enclosed in leather sacks and therefore have no grooves. The average weight of a ball is perhaps a pound, but there is a good deal of variation in this respect.

The cord used in Tehuelche bolas is of ostrich or guanaco sinew, braided four-ply.

As a weapon the bolas has both its advantages and disadvantages.

[10] 1905, p. 427.

5: Bourne T-S (1849)1874
SH5 Tehuelche SH5

itary a brass tinder-box, with a stone and a piece of steel, and soon produced a blaze that brilliantly illuminated the scene. By its light I was enabled to survey the first specimen of Patagonian architecture that had blessed my vision. It was constructed in a *pointed* style, though not very aspiring, consisting of a row of stakes about eight feet high, each terminating at top in a crotch, or fork, with a pole laid across them; two parallel rows of stakes on either side, about two feet high, with similar terminations, and a similar horizontal fixture; and a covering composed of skins of the guanaco, sewed together with the sinews of the ostrich, the only thread used by the people. This covering is drawn over the frame-work, and fastened by stakes driven through it into the ground. For purposes of ventilation some interstices are left, but these again are half closed by skins attached to the outside; so that the air from without, and the smoke from within (in default of a chimney), must insinuate themselves through these apertures in great moderation. In truth, my first survey was rather hurried; the first cheerful gleam had scarcely set my eyes on the look-out when I was fain to shut them against an intolerable smoke. In so long time I felt as brave, if conscious, might be supposed to feel in the process of curing. No lapse of time was sufficient to reconcile my eyes, nostrils and lungs, to the nuisance; often have I been more than half strangled by it, and compelled to lie with my face to the ground, as the only endurable position. Talk that is "worse than a smoky house" must be something out of date, or Shakspeare's imagination never comprehended anything so detestable as a Patagonian hut. The chief and his numer-

5: Bourne T-5 (1849)1874
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401 years old, would be a prodigy among them,—a miracle of genius.

291 297 An opportunity was afforded, while in camp, to see some specimens of their tailoring or mantua-making achievements;—either term is appropriate, as the male and female dress do not differ in form, and but slightly in the mode of adjustment. The mantle or blanket is worn around the shoulders; those of the women are fastened together by the corners under the chin with a stick for a pin; the men hold theirs around them with their hands, except that when hunting they tie a string around the waist.

281 284 The skins of young guanacos are selected for mantles, on account of the superior fineness and softness of the hair. Nearly a dozen skins are used for a single mantle, as a large part of each is esteemed unfit for use, and thrown away. The skins, while green, are stretched to their utmost tension on the ground to dry. When partially dried, they are scraped on the inside with a stone sharpened like a gun-flint, sprinkled the while with water, to facilitate the operation. When the surface is made tolerably smooth, and of a pretty uniform thickness, it is actively scoured with a coarse-grained stone, till it has a bright polish. The skin is again dried, then crumpled and twisted in the hands till it becomes perfectly soft and pliable. The

283 297 thread, as has been stated, is made from the sinews of the ostrich. These are extracted by the exertion of great strength, and divided into strings about the size of ordinary shoe-thread. They are then twisted, the ends are scraped to a point, and when dry become stiff; they are now ready for use.

462 woman be sick, for she must somehow find the strength to do all this.
[342 In addition to these things she must sew the tent together, it being made
281] always of the skins of full grown guanacos, and all the other skins which
go to make bedding and clothing, these usually being made of hare,
skunk or newly born or unborn guanacos. These small guanacos are col-
lected and skinned in the springtime, and those in excess of the local
need are bartered with the Indians of Rio Negro for horses, clothing,
beaded halters and knives, which the latter acquire by trading or on their
438 periodic invasions of the Buenos Aires frontier. The fact is that the
Indians whom we are here describing have never had dealings with Spaniards
until the present date, nor have they seen any Spanish towns, nor do these
regions contain iron, metal, brass, tools or arms - all these things must
be acquired by the above mentioned trading. The women, in order to
[281 sew the skins together use awls which they make from the iron the Rio
● 283] Negro Indians give them, and instead of thread they use nerves which
they collect, as needed, from the legs of ostriches.

622 The chieftainship is hereditary and his authority absolute in re-
484 gard to shifting the camp site in search of the game upon which they live.
203 When the chief thinks that it is time to move he shouts out a speech in a
loud voice from his tent the evening before the move is to be made. All
the others listen to him with great attention, each from his own tent.
He tells them that a move must be made on the following day, he assigns
a time for rounding up [71] the horses, for striking the tents and for
starting out; no one answers him, and at the assigned hour all are ready
484 as he has ordered. The women travel along paths which lead to the
watering places where they are to stay; they are responsible for all the
224 baggage. The men, after the women have got under way, spread out
and take their places in the surrounding region in order to enclose the
guanacos and entangle them with the bolas as they attempt to break away.
The guanacos cannot be chased, for they dash away headlong at such
speed that no horse or dog can catch them. Once brought down by the
bolas the dogs assist the Indians to finish them off. The chief himself
assigns the position each Indian must take for the guanaco beat, for which
[622] in testimony of his overlordship, he is given part of the catch. The chief
never takes active part in the hunt and does nothing other than go from
484 stand to stand. The longest day's journeys are of four leagues. On ar-
riving at the assigned camping place the women put up the tents, col-
[313 lect firewood and have everything ready for the coming of the men. The
462] latter, when the sun sets, go to their tents, and never have I seen any of
them arrive at their tents after nightfall. If the march is to be continued
on the following day the chief harangues his people in the same manner